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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/622,278	09/20/2000	Matthias Hartrumpf	31583-165338	8745

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EXAMINER

SOHN, SEUNG C

ART UNIT

PAPER NUMBER

2878

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/622,278	Applicant(s) HARTRUMPF, MATTHIAS	
	Examiner Seung C. Sohn	Art Unit 2878	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 March 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-23 and 25-41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14-23 and 25-41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 May 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on March 8, 2004 has been entered.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, **the production process in claim 28** must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Objections

3. **Claims 19, 21, 30 and 34** are objected to because of the following informalities:

On claims 19, 21 and 34, line 2, "the scanner beam path" before "for splitting" should be changed to -- the scanning beam path -- for consistency.

On claim 30, line 2, "an object" after "relative to" should be changed to -- the object --. Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. ***Claims 14-23 and 25-41 are rejected under 35 U.S.C. 112, second***

paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. **Referring to claims 14 and 29**, lines 6-7, it is unclear as to how a photo detector is disposed *for* a receiver beam path. Clarification is required. **Referring to claim 14**, line 8, “the beam” after “receiving” lacks antecedent basis. **Referring to claim 14**, lines 10-11, it is unclear as to how a dark field stop is disposed in the receiver beam path in the focal plane of said optical receiver system. Clarification is required. **Referring to claims 18 and 33**, line 3, “the scanner unit” after “an optical axis of” lacks antecedent basis. **Referring to claims 21 and 34**, line 2, “the scanning beam” after “for splitting” lacks antecedent basis. **Referring to claims 20-22 and 34-37**, “the scanning direction” lacks antecedent basis. **Referring to claim 27**, line 3, it is unclear as to how a reference beam path is *realized* in the combination unit. Clarification is required. **Referring to claim 27**, line 3, it is unclear what the outside space means. Clarification is required. **Referring to claim 27**, line 4, it is unclear what the beam path is referring to. Does it refer to the receiver beam path or the reference beam path? Clarification is required. **Referring to claim 27**, line 5, “the resulting interference pattern” lacks antecedent basis. **Referring to claim 27**, line 6, “means of at least one detector element” is unclear and confusing. Does it refer to the photo detector in claim 14 or another detector element? Clarification is required. **Claim**

28 provides for the use of a production process, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced. Claim 28 is rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966). **Referring to claim 29**, line 10, "the beam" after "receiving" lacks antecedent basis.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. ***Claims 29-30 and 33-39 are rejected under 35 U.S.C. 102(b) as being anticipated by Pryor et al. (Patent No US 5,693,953).***

Referring to claim 29, Pryor et al. shows in Fig. 3 the following elements of Applicant's claim:

a) an emitter unit having a laser (33), a beam deflector unit (32) and an optical emitter system (34, 31), which define a scanning beam path as well as a scanning plane (Col. 4, lines 61-63);

b) a receiver unit including a photo detector (30 or 39) disposed in the focal plane of an optical receiver system for a receiver beam path, the surface normal of said optical receiver system being parallel with the scanning beam path and said photo detector being a photo diode array, the receiver unit receiving the beam after scanning the object (25) and generating a signal (Col. 4, lines 63-65);
and

c) an electronic analyzing system (44, i.e., micro-computer) for determining the macroscopic geometric parameters from the signal (Col. 5, lines 46-51).

Referring to claim 30, Pryor et al. shows in Fig. 3 that said emitter unit (33) and said receiver unit (30 or 39) are disposed on the same side relative to the object to be measured.

Referring to claim 33, Pryor et al. shows in Fig. 3 additional receiver units (30 or 39) disposed at an angle different from 0 or 180 degree relative to an optical axis of the scanner unit in the scanning plane.

Referring to claims 34 and 36, Pryor et al. shows in Fig. 14 an optical system (203, i.e., beam splitter) arranged in the scanner beam path for splitting the scanning beam in the direction orthogonal on the scanning direction (Col. 10, lines 17-20).

Referring to claims 35 and 37, Pryor et al. discloses that there is formed a grid having lines oriented orthogonally with respect to the scanning direction (Col. 10, lines 4-8).

Referring to claims 38 and 39, Pryor et al. discloses that said electronic analyzing system is adapted to determine diameters in two orthogonal directions of a transparent rod or tube placed as said object in the scanning beam path from positions of local intensity maxima on one photo diode of the photo diode array (Col. 10, lines 24-35).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. ***Claims 31-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pryor et al. (Patent No US 5,693,953) in view of Musto et al. (US Patent No. 4,432,648).***

Referring to claim 31-32, Pryor et al. discloses as above, but does not disclose a retro reflector unit arranged behind the object to be measured. Musto et al. shows in Fig. 1 retro reflectors (28, 53 and 54) (Col. 3, lines 16-24 and Col. 4, lines 32-35). Therefore, it would have been obvious to a person having ordinary skill in the art to provide a retro reflector unit of Musto et al. in the device of Pryor et al. since the use of

a retro reflector unit is a common structural provision taken by those skilled in the art for performing the specific types of measuring operations as taught by Musto et al.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Seung C. Sohn whose telephone number is (571) 272-2446. The examiner can normally be reached on Monday through Friday from 8:30 am to 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Porta can be reached on (571) 272-2444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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THANH X. LUU
PATENT EXAMINER